

## Clinical Cases.

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### A CYST OF THE PIA MATER IN A CHILD FIFTEEN MONTHS OLD.

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M. S., aged fifteen months, an inmate of the New York Infant Asylum, came under my observation in August, 1885. The family history was tubercular, and a grandmother seemed to have been imbecile.

The child was born in the institution. The mother was a primipara, nineteen years of age. The child presented in the R. O. A. position, and was delivered after a natural labor of seven hours. The child never had any convulsions, nor any illness except sub-acute laryngitis. It was nursed by the mother, but was delicate and backward in its development. It had never walked alone, made no attempts to talk, and the nurse who had charge of the child during the later months thought its hearing was defective. This was brought out in response to inquiry after the child's death, but the physician's attention was never called to the fact.

The child had a peculiar habit of swaying its body backwards and forwards, which was continued much of the time during its waking hours. The child was taken with enterocolitis in the middle of August, developed broncho-pneumonia a few days later, and died after a two weeks' illness. Marked cerebral symptoms were present only during the last three days. These were nystagmus, muscular tremors, irregular movements of the hands and feet, irregular respirations, dilated pupils and opisthotonos. The child died of pulmonary œdema.

The autopsy was made twenty-one hours after death. The body was thin, but not emaciated.

The evidence of quite an extensive broncho-pneumonia was found in the lungs, and of a moderate enteritis in the intestines, but nothing of special interest except in the brain.

The brain was intensely congested, sinuses all distended with fluid blood, cerebro-spinal fluid greatly in excess; four ounces were collected. The pia was dull in appearance, but no exudation of lymph or pus was anywhere present, and no tubercles. After removal of the brain from the cranial cavity, a deep depression was

seen in the temporal lobe. It occupied the interior and upper portion of the lobe, encroaching on the first and second temporal convolutions. This cavity was conical in shape, with its apex directed inwards and slightly upwards; a horse chestnut could be laid in it easily. It measured one inch across its base and one and one-fourth inches in depth. Before removal, this had evidently been converted into a cyst by the pia stretching across its base, this had been lacerated in removal, allowing the fluid contents to escape. On floating the brain in water, the edges of the torn pia could be seen to meet across the depression.

At the bottom of the cavity the brain substance was firm and slightly pigmented. It was composed of gray matter and was covered with the thin cyst-wall.

A microscopical examination was made of the wall of the cyst



Cyst of the Pia Mater.

and the brain substance immediately beneath it. It showed the cyst-wall to be made up of the pia-mater greatly thickened. This connective-tissue growth compressed the cortex, but did not invade it below its superficial layers. The cells of the cortex were not altered appreciably. Here and there large-sized capillaries were visible. No crystals of hematin were seen. At one point was a granular mass which might be possibly pigment. The appearance of the connective tissue was old and well organized, such as might be expected in the wall of such a cyst. The exact location of the cyst is shown in the accompanying sketch made by Dr. Frank W. Olds.

Regarding the origin of the cyst, we are left completely in the dark by the clinical history. It will be seen that at no time during birth or in after-life did any symptoms present themselves pointing to a meningeal hemorrhage. If such is to be assumed as

the explanation, it must have occurred *in utero*. The slight degree of pigmentation at the bottom of the sac noted in the fresh specimen favors such an opinion. Further than this there was no evidence, pathological or otherwise, for regarding it as anything else than a simple cyst of the pia.

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